

Claims

1. A compressed air system servicing device comprising several functional modules able to be connected together in a row, wherein the modularly configured functional modules each include a uniform basic pneumatic block (10), which at two parallel outer walls (11) possesses connection means (12) for the production of the pneumatic connections on being placed in a row and at least two of the remaining outer walls of the basic pneumatic block (10) possess interfaces for connection with functional blocks (13, 16, 20 and 21), at least one of the interfaces being designed to accept different functional blocks.

2. The compressed air system servicing device as set forth in claim 1, characterized in that the interfaces possess electrical and/or pneumatic connecting means, and more especially plug and/or screw connecting means.

3. The compressed air system servicing device as set forth in claim 1 or in claim 2, characterized in that one of the functional blocks (16) is an electrical concatenation block for electrical longitudinal concatenation of the functional modules.

4. The compressed air system servicing device as set forth in claim 3, characterized in that the functional block (16) designed in the form of a concatenation block possesses an interface (26), on at least one side not engaging the basic pneumatic block (10), for electrical connection with at least one functional block (13, 20 and

21) engaging the basic pneumatic block (10), the interface (26) being more particularly designed in the form of an electrical plug or an electrical plug socket.

5 5. The compressed air system servicing device as set forth in claim 4, characterized in that the at least one functional block (20 and 21) overlaps the basic pneumatic block (10) and the functional block (16) in the form of a concatenation block.

10 10 6. The compressed air system servicing device as set forth in any one of the claims 3 through 5, characterized in that a functional block (13), which is able to be engaged with the front side of the basic pneumatic block (10) and is in the form of a front block, is electrically connected, by way of the basic pneumatic block (10) or a functional block (20) connected therewith, with the functional block (16) in the form of a concatenation block.

20 20 7. The compressed air system servicing device as set forth in claim 6, characterized in that the functional block (13) in the form of a front block is provided with a display device (14) and/or operating elements.

25 25 8. The compressed air system servicing device as set forth in any one of the claims 3 through 7, characterized in that the functional block (16 and 29) in the form of a concatenation block possesses electrical and/or mechanical decoding means for recognition of the connected functional blocks (13, 20 and 21).

35 35 9. The compressed air system servicing device as set forth in any one of the claims 3 through 8, characterized in that the functional block (16 and 29) in the form of a concatenation block includes electronic control and/or diagnostic means and/or visualizing means for process

parameters and/or process stages.

10. The compressed air system servicing device as set forth in any one of the claims 3 through 10, characterized in that the functional block (16 and 29) in the form of a concatenation block comprises a field bus interface.

11. The compressed air system servicing device as set forth in any one of the claims 3 through 10, characterized in that the functional block (29) in the form of a concatenation block comprises a conductor supporting element (30) and an electrical block (32) able to be electrically coupled with same.

15 12. The compressed air system servicing device as set forth in any one of the claims 3 through 11, characterized in that the functional block (16 and 29) in the form of a concatenation block comprises at least one printed circuit board (19) which is able to be electrically connected with, and more particularly plugged to, printed circuit boards (22 through 25) in functional blocks (13, 20 and 21) thereof which are able to be coupled.

25 13. The compressed air system servicing device as set forth in any one of the preceding claims, characterized in that filter blocks and/or pressure regulating blocks and/or valve blocks and/or oiler blocks and/or sensor blocks and/or drier blocks and/or distributor blocks are designed as functional blocks (20 and 21) able to be 30 connected selectively with the basic pneumatic block (11).